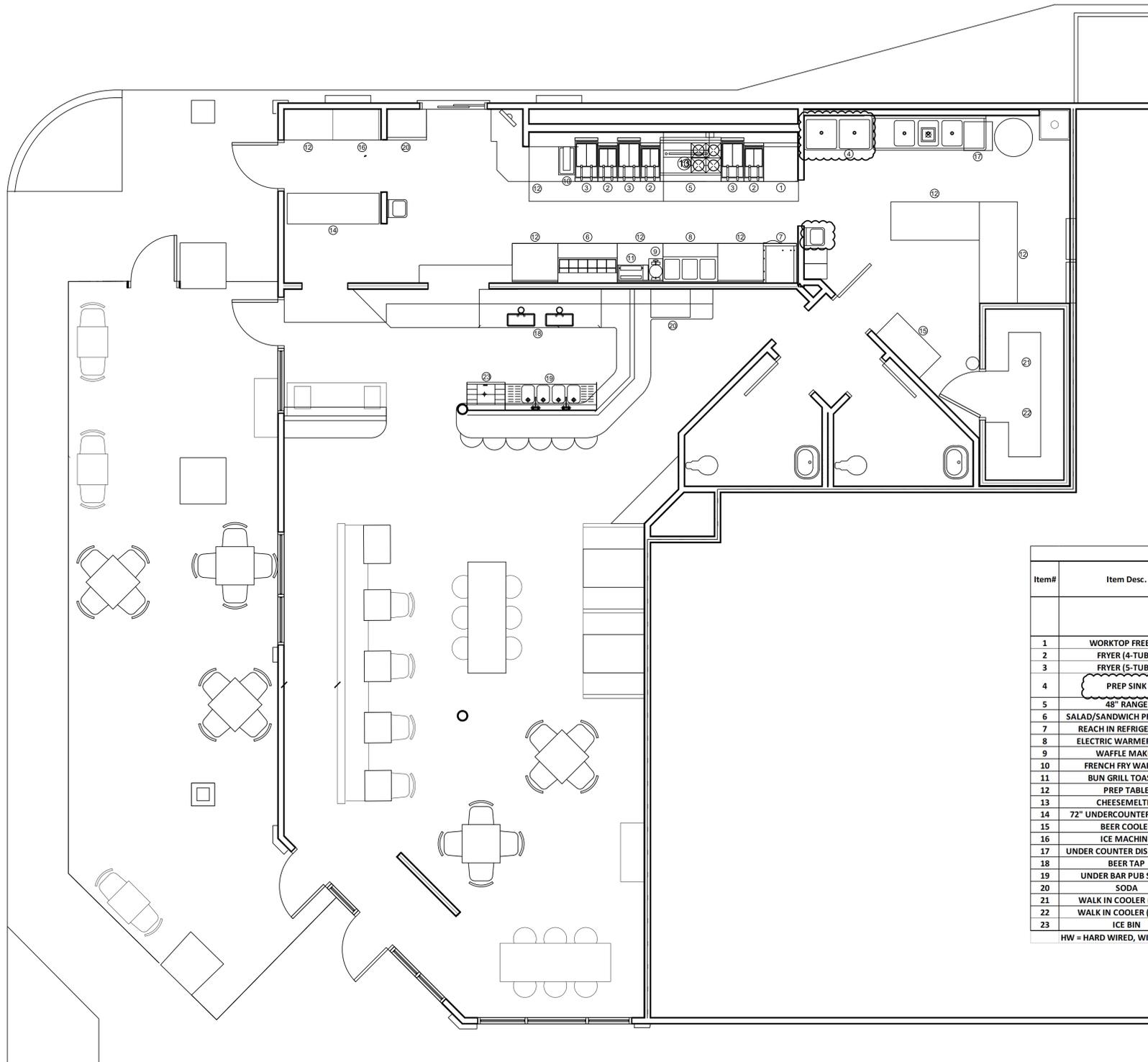


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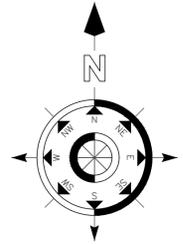
REVISIONS:	DATE:
ADDED PREP SINK, RELOCATED HAND SINK	3/25/2020

THE PROFESSIONAL ENGINEER'S SEAL ON THIS DRAWING HAS BEEN AFFIXED IN ACCORDANCE WITH THE REQUIREMENTS OF STATE REGULATIONS. IN AFFIXING THIS SEAL THE ENGINEER TAKES RESPONSIBILITY FOR THE WORK SHOWN ON THIS DRAWING ONLY, AND HEREBY DISCLAIMS ANY AND ALL RESPONSIBILITY FOR OTHER PROJECT DRAWINGS NOT DIRECTLY BEARING THIS SEAL.



Item#	Item Desc.	Electrical						Plumbing							
		Voltage	Amps	Watts	Breaker	Plug	Water	Sewer	GAS			REGULATOR SUPPLIED WITH EQ?			
									CONN	KBTU'S	PRESSURE				
1	WORKTOP FREEZER	120/1	2.1		20	5-15P									
2	FRYER (4-TUBE)									3/4"	120				
3	FRYER (5-TUBE)									3/4"	150				
4	PREP SINK						1/2" HW, CW	1-1/4"							
5	48" RANGE	120/1	3.4		20	5-15P			1"	200	5"		N		
6	SALAD/SANDWICH PREP TABLE	120/1	7.8		20	5-15P									
7	REACH IN REFRIGERATOR	120/1	2.7		20	5-15P									
8	ELECTRIC WARMER TABLE	120/1	12.5	1500	20	5-15P									
9	WAFFLE MAKER	120/1	11.7	1400	20										
10	FRENCH FRY WARMER	120/1	8.3	1000	20	5-15P									
11	BUN GRILL TOASTER	208/1	7.7	1600	20	6-20P									
12	PREP TABLE														
13	CHEESEMELTER	120/1	3.4		20				3/4"	40	5"		Y		
14	72" UNDERCOUNTER COOLER	120/1	6.0		20	5-15P									
15	BEER COOLER	120/1	6.0		20	5-15P									
16	ICE MACHINE	120/1	12.0		20	5-15P		FD							
17	UNDER COUNTER DISHWASHER	208/1	37.2		50	HW	3/4" HW	1-1/2"							
18	BEER TAP	120/1	5.5		20	5-15P		FD							
19	UNDER BAR PUB SCRUB	120/1	3.0		20	5-15P									
20	SODA	120/1	3.0		20	5-15P		FD							
21	WALK IN COOLER (EVAP)	120/1	5.0		20	HW		FD							
22	WALK IN COOLER (COND)	208/1	10.0		20	HW									
23	ICE BIN							FD							

HW = HARD WIRED, WITH LOCAL DISCONNECT IF NOT WITHIN SIGHT OF DISCONNECTING MEANS



Mark Timberlake, P.E.  
PE-0049319

MARCH 25, 2020

**TIMBERLAKE ENGINEERING, L.L.C.**  
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**KITCHEN EQUIPMENT LAYOUT**

**HYPNO-CHIC RESTAURANT**

DATE:	01-12-2020	SHEET NO.
DRAWN BY:	MBT	
PROJECT NO:	19001	
SCALE:	1/4"=1'-0"	

**KE100**

# HVAC SPECIFICATIONS

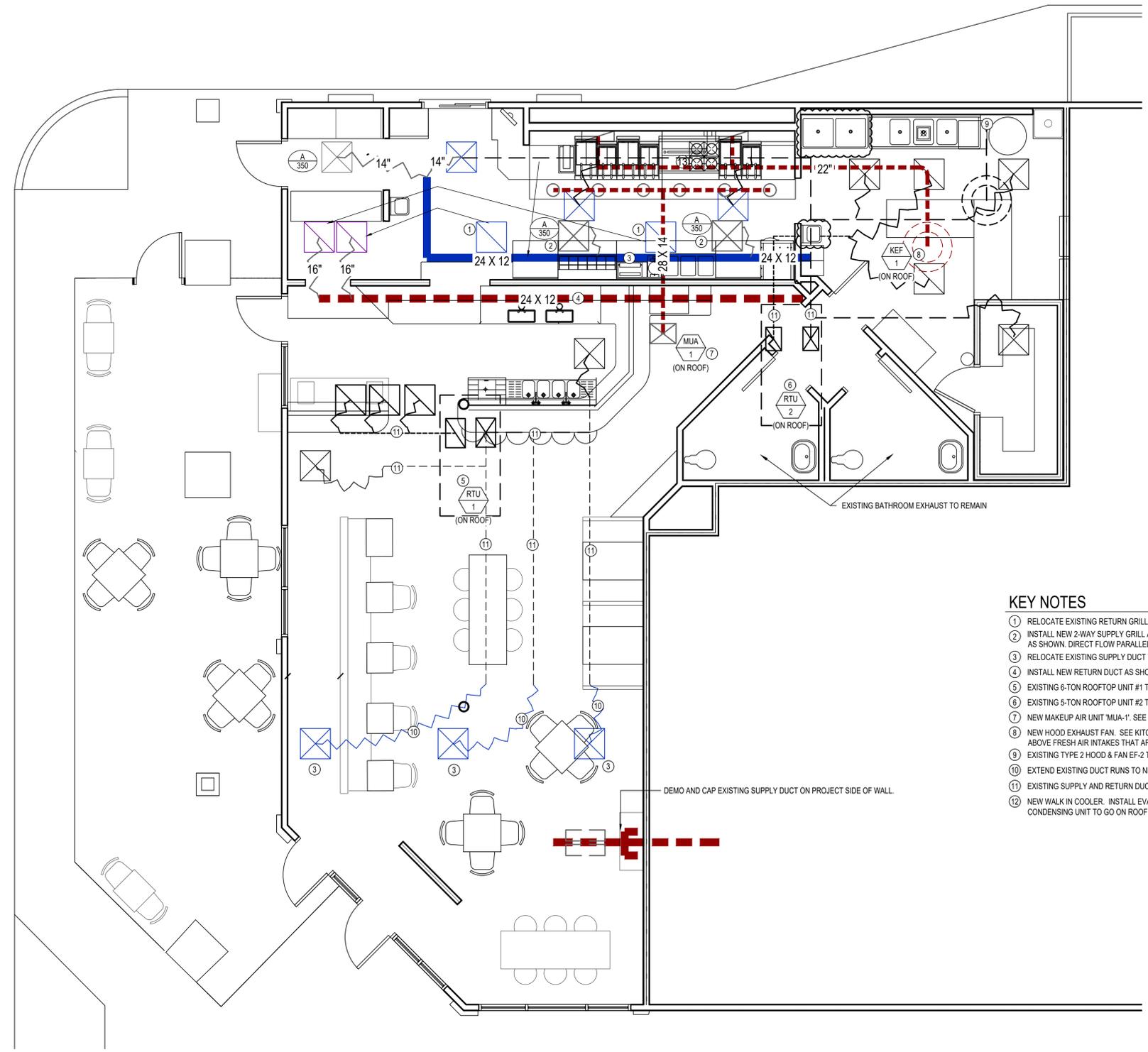
1. INSULATION:
  - 1.1. ALL INTERNAL DUCT LINER TO BE 1" AND EQUAL TO "CERTAINTED TOUGHGUARD T" UNLESS NOTED OTHERWISE.
  - 1.2. ALL DUCT WRAP SHALL BE 2" WITH VAPOR BARRIER EQUAL TO "CERTAINTED SOFTTOUCH DUCT WRAP" WITH FSK JACKET UNLESS NOTED OTHERWISE.
  - 1.3. EXHAUST AIR DUCTS IN UNCONDITIONED SPACES SHALL HAVE DUCT WRAP.
  - 1.4. OUTDOOR AIR DUCTS IN CONDITIONED SPACES SHALL HAVE DUCT WRAP.
  - 1.5. ALL EXTERIOR DUCTS SHALL HAVE 2" THICK CLOSED CELL FLEXIBLE ELASTOMERIC DUCT WRAP AND 26 GA ALUMINUM JACKET WITH OVERLAPPED SEAMS SEALED WATERTIGHT AND SLOPED TO AID DRAINAGE.
  - 1.6. REFRIGERANT PIPING:
    - 1.6.1. SPLIT SYSTEMS - SUCTION LINE ONLY TO BE 1/2" ARMAFLEX.
    - 1.6.2. VRV / VRF SPLIT SYSTEMS - BOTH SUCTION AND LIQUID LINES TO BE AS FOLLOWS:
      - 3/4" ARMAFLEX FOR 3/8" THRU 7/8" PIPES
      - 1" ARMAFLEX FOR 1 1/8" THRU 1 5/8" PIPES
- 1.7. CONDENSATE PIPING: 1/2" ARMAFLEX IN UNCONDITIONED SPACES ONLY.
2. ALL DUCTWORK SHALL BE MIN. 26 GA. UP TO 16", 24 GA. UP TO 20", 22 GA. UP TO 24", 20 GA. UP TO 26", AND 18 GA. UP TO 36" OF GALVANIZED STEEL, SEALING CLASS "B", FABRICATED AND INSTALLED IN STRICT CONFORMANCE TO SMACNA SPECIFICATIONS. ALL TEES, ELBOWS, OR CHANGES IN DIRECTIONS SHALL HAVE TURNING VANES.
3. AIR CONDITIONING EQUIPMENT SHALL BE AS SPECIFIED ON DRAWINGS, UNLESS APPROVED OTHERWISE BY THE ENGINEER. EQUIPMENT SHALL BE "COMMERCIAL" RATED IN ALL CASES EXCEPT RESIDENTIAL APPLICATIONS.
4. GRILLES AND REGISTERS SHALL BE PRICE, OR APPROVED EQUAL.
5. ALL TEMPERATURE CONTROLS SHALL BE MIN. 18 GA. COPPER, PLENUM RATED CABLE.
6. DUCTWORK DIMENSIONS ARE INSIDE DIMENSIONS.
7. ALL HORIZONTAL FURNACES MUST BE EQUIPPED WITH GALVANIZED STEEL DRAIN PAN, WITH DRAIN PIPED TO FLOOR DRAIN OR INDIRECT WASTE, IN AN OBVIOUS, VISIBLE LOCATION, PER IPC.
8. ALL SUPPLY BRANCHES TO INDIVIDUAL DIFFUSERS MUST BE SUPPLIED WITH BALANCING DAMPERS; WHERE BRANCH TAKEOFFS ARE INACCESSIBLE (ATTICS, SOFFITS, ETC) BALANCE DAMPER SHALL BE PROVIDED AT FACE OF DIFFUSER, WHERE BRANCH TAKEOFFS ARE ACCESSIBLE (ABOVE DROP CEILING, EXPOSED DUCTS, ETC) BALANCE DAMPER SHALL BE LOCATED AT BRANCH TAKEOFF.
9. ALL SYSTEMS MUST BE FIELD BALANCED TO WITHIN 10% OF THE DESIGN FLOWS INDICATED ON THE DRAWINGS. CERTIFIED AIR BALANCING IS NOT REQUIRED. CONTRACTOR MUST SUBMIT BALANCING REPORT PRIOR TO RECEIVING FINAL PAYMENT.
10. FLEX DUCT (THERMAFLEX M-KE OR EQUAL) IS ALLOWED FOR FINAL CONNECTION FROM STEEL DUCTWORK TO AIR TERMINAL DEVICES ONLY, LENGTHS NOT TO EXCEED 8'-0", AND SUPPORTED AS SHOWN ON HVAC DETAILS SHEET.
11. MINIMUM SPLIT SYSTEM EFFICIENCIES FOR HEATING AND COOLING SHALL BE:
  - 11.6. HEATING AFUE = 90%
  - 11.7. COOLING SEER = PER LATEST EDITION OF ASHRAE 90.1
12. MINIMUM ROOFTOP UNIT EFFICIENCIES SHALL MEET STANDARDS PER LATEST EDITION OF ASHRAE 90.1.
13. FINAL CONNECTIONS TO AIR HANDLING EQUIPMENT ARE NOT SHOWN. CONTRACTOR TO INCLUDE TRANSITIONS AND FITTINGS AS REQUIRED TO TRANSITION FROM EQUIPMENT DUCT CONNECTION SIZES TO TRUNK LINE SIZES SHOWN ON PLANS.
14. DUCTWORK SHALL NOT BE INSTALLED SUCH THAT IT RESTRICTS ACCESS TO ELECTRICAL JUNCTION BOXES OR DIRECTLY OVER ELECTRICAL PANELS.
15. REFRIGERANT PIPING MUST BE COPPER TYPE ACR OR TYPE L.
16. AIR CONDITIONING EQUIPMENT TO BE INSTALLED LEVEL AND PLUMB. ROOFTOP UNITS AND FANS SHALL BE ON FACTORY ROOF CURBS. ROOFTOP MOUNTED CONDENSING UNITS SHALL BE MOUNTED ON TREATED 4X4S WHICH ARE PLACED ON A WALK MAT COMPATIBLE WITH THE ROOFING SYSTEM, TO BE PURCHASED FROM THE ROOFING CONTRACTOR. ROOFTOP MOUNTED PIPING AND VRV/VRF EQUIPMENT SHALL BE ON A SUPPORT FRAME MOUNTED TO "ROOFTOP BLOC". GROUND MOUNTED EQUIPMENT TO BE ON 4-INCH THICK, REINFORCED CONCRETE BASE THAT IS 4 INCHES LARGER, ON EACH SIDE, THAN UNIT.
17. ALL EQUIPMENT LOCATED OUTDOORS SHALL BE EQUIPPED WITH FACTORY HAIL GUARDS TO PROTECT EXPOSED COILS.
18. EQUIPMENT LOCATIONS SHOWN ON PLANS ARE APPROXIMATE. CONTRACTOR TO CONFIRM THAT EQUIPMENT MOUNTED GREATER THAN 30" ABOVE ADJACENT GRADE, SHALL BE LOCATED MINIMUM 10'-0" FROM EDGE, UNLESS A GUARD OR PARAPET (MIN. 42" TALL) PROTECTS THE EDGE.
19. PROTECT DUCT INTERIORS FROM MOISTURE, DEBRIS, DUST & FOREIGN MATERIALS IN ACCORDANCE WITH SMACNA "DUCT CLEANLINESS FOR NEW CONSTRUCTION" GUIDELINES.

## HVAC SYMBOL LEGEND

-  TYPE OF EQUIPMENT (SEE EQUIPMENT SCHEDULE)
-  REFERENCE NUMBER
-  TYPE OF DIFFUSER (SEE DIFFUSER SCHEDULE)
-  CFM / FACE SIZE
-  SUPPLY DIFFUSER  
IF OTHER THAN 4-WAY, SHADING INDICATES NO FLOW ZONE
-  RETURN GRILLE
-  BALANCE DAMPER
-  MOTORIZED DAMPER
-  CEILING RADIATION DAMPER
-  SUPPLY DUCT
-  EXISTING SUPPLY DUCT
-  RETURN DUCT
-  EXISTING RETURN DUCT
-  EXHAUST DUCT (D.V. DESIGNATES DRYER VENT)
-  EXISTING EXHAUST DUCT (D.V. DESIGNATES DRYER VENT)
-  OUTSIDE AIR DUCT
-  FLEX DUCT
-  VENT / COMBUSTION AIR
-  CONDENSATION LINE
-  REFRIGERANT LINE
-  TIE INTO EXISTING
-  THERMOSTAT
-  CO2 DETECTOR

## GENERAL NOTES

1. REFER TO MD100 FOR REMAINING HVAC NOTES, LEGENDS, DETAILS & SCHEDULES.
2. DUCTWORK & EQUIPMENT LABELED "EX." OR "EXISTING" IS EXISTING TO REMAIN UNLESS NOTED OTHERWISE.



## KEY NOTES

- 1 RELOCATE EXISTING RETURN GRILLE AS SHOWN.
- 2 INSTALL NEW 2-WAY SUPPLY GRILLE AT LOCATION SHOWN. CONNECT TO RELOCATED SUPPLY DUCT AS SHOWN. DIRECT FLOW PARALLEL TO HOOD, NOT TOWARD HOOD.
- 3 RELOCATE EXISTING SUPPLY DUCT TO LOCATION SHOWN.
- 4 INSTALL NEW RETURN DUCT AS SHOWN.
- 5 EXISTING 6-TON ROOFTOP UNIT #1 TO REMAIN. ADJUST OA TO AMOUNTS SHOWN IN TABLE BELOW.
- 6 EXISTING 5-TON ROOFTOP UNIT #2 TO REMAIN. ADJUST OA TO AMOUNTS SHOWN IN TABLE BELOW.
- 7 NEW MAKEUP AIR UNIT "MUA-1". SEE HOOD SHEETS.
- 8 NEW HOOD EXHAUST FAN. SEE KITCHEN HOOD DETAIL AND HOOD SHEETS. LOCATE DISCHARGE 36" ABOVE FRESH AIR INTAKES THAT ARE LOCATED WITHIN 10'-0" HORIZONTALLY.
- 9 EXISTING TYPE 2 HOOD & FAN EF-2 TO REMAIN.
- 10 EXTEND EXISTING DUCT RUNS TO NEW GRILLE LOCATIONS AS SHOWN.
- 11 EXISTING SUPPLY AND RETURN DUCTS TO REMAIN
- 12 NEW WALK IN COOLER. INSTALL EVAPORATOR AND CONDENSING UNIT, PIPING, AND START UP. CONDENSING UNIT TO GO ON ROOF.



## HVAC PLAN

SCALE : 1/4" = 1'-0"

AIR DEVICES SCHEDULE									
MARK	MFR.*	MODEL*	MOUNTING	SERVICE	THROW	FACE SIZE	MATERIAL	FINISH	REMARKS
A	PRICE	*	CEILING	SUPPLY	8'	24X24	STEEL	WHITE	WITH BUTTERFLY DAMPER
* SELECT MODEL TO MATCH STYLE OF EXISTING GRILLES.									

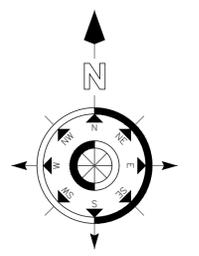
AIR BALANCE CALCULATION (CFM)				
SOURCE	INTAKE	EXHAUST	NET	NET %
KEF-1		3466	-3466	
BR EF	200	-200		
EF-2		400	-400	
MUA	2772		2772	
RTU-1	800		800	
RTU-2	500		500	
<b>TOTAL</b>	<b>4,072</b>	<b>-4,066</b>	<b>6</b>	<b>0%</b>

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REVISIONS:	DATE:
ADDED PREP SINK, RELOCATED HAND SINK	3/25/2020

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Mark Timberlake, P.E. MARCH 25, 2020  
PE-0049319

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(573) 881-5684

## HVAC PLAN

### HYPNO-CHIC RESTAURANT

255 ANGLER'S DRIVE, SUITE A, STEAMBOAT SPRINGS, CO 80487

DATE:	01-12-2020	SHEET NO.	
DRAWN BY:	MBT		
PROJECT NO.:	19001		
SCALE:	1/4"=1'-0"		

# M100

## ELECTRICAL SPECIFICATIONS

- ALL CONDUCTORS SHALL BE THHN COPPER ABOVE GRADE, XHHW-2 BELOW GRADE, MINIMUM #12 OR LARGER AS REQUIRED OR SHOWN.
- ALL SERVICE WIRING, EXPOSED TO WEATHER, OR WIRING BELOW GRADE, SHALL BE IN RIGID GALVANIZED CONDUIT OR SCH. 40 PVC.
- ALL OTHER WIRING SHALL BE IN EMT, SCHEDULE 40 PVC, OR MC CABLE, UNLESS PROTECTED AND ENCLOSED WITHIN BUILDING MATERIALS, IN WHICH CASE TYPE NM CABLE MAY BE USED.
- WALL SWITCHES SHALL BE LEVITON #CS120 SERIES, OR APPROVED EQUAL. 20A. COLOR SHALL BE DETERMINED BY ARCHITECT. DIMMER SWITCHES SHALL BE SELECTED BY CONTRACTOR TO BE COMPATIBLE WITH LIGHT FIXTURES PROVIDED. COLOR SHALL BE DETERMINED BY ARCHITECT.
- DUPLEX RECEPTACLES SHALL BE TAMPER RESISTANT LEVITON #F580 SERIES, OR APPROVED EQUAL. 20A. GROUNDING, MATCHING COVER PLATE, COLOR AS DETERMINED BY ARCHITECT. USE SIDE WIRING ONLY.
- ARC-FAULT CIRCUIT INTERRUPTER BREAKERS SHALL BE COMBINATION TYPE BY SQUARE D, AND SHALL HAVE A DEDICATED NEUTRAL WIRE THROUGHOUT THE CIRCUIT.
- THE ENTIRE SYSTEM SHALL BE ELECTRICALLY CONTINUOUS AND PROPERLY GROUNDING. EVERY FEEDER AND BRANCH CONDUIT SHALL HAVE CODE SIZED GREEN INSULATED GROUND CONDUCTOR.
- FURNISH AND INSTALL ALL LIGHTING FIXTURES, LAMPS, FUSES, BREAKERS, ETC. TO COMPLETE THE BRANCH CIRCUITS INDICATED.
- ALL 120V, 20A LIGHTING AND RECEPTACLE CIRCUITS REQUIRING MORE THAN 100' OF CONDUCTORS (ONE WAY) SHALL BE #10 CONDUCTORS, MINIMUM.
- PROVIDE TYPEWRITTEN BREAKER SCHEDULE IN EACH PANELBOARD INDICATING ITEMS AND DEVICES SERVED BY ALL BREAKERS IN EACH PANEL.
- PERMANENTLY LABEL DISCONNECTS FOR HVAC EQUIPMENT WITH EQUIPMENT SERVED, AND PANEL AND CIRCUIT NUMBER.
- UNDERGROUND SPLICES TO BE MADE WITH DEVICES RATED FOR THAT APPLICATION.
- ALL ELECTRICAL PANELS AND DISCONNECTS SHALL HAVE A PERMANENT ARC-FLASH LABEL AFFIXED PER NEC 110.16.

## POWER SYMBOL LEGEND

- xx-xx POWER RECEPTACLE
- MOUNTING HEIGHT (INCHES)
- IF OTHER THAN 18" AFF (BOTTOM OF BOX)
- "WP" INDICATES WEATHERPROOF OUTDOOR RECEPTACLE.
- "AW" INDICATES ABOVE WINDOW RECEPTACLE
- "C" INDICATES ABOVE CEILING
- "E" INDICATES EXISTING RECEPTACLE TO REMAIN
- GFI DUPLEX CONVENIENCE OUTLET
- QUADPLEX CONVENIENCE OUTLET
- 208V OUTLET
- USB OUTLET EQUAL TO LEVITON #T5832 OR APPROVED EQUAL
- DATA / TELEPHONE JACK (MOUNTED @ 18" AFF U.N.O.)
- OUTLET BOX WITH 1" CONDUIT UP TO CEILING SPACE w/ PULL STRING.
- PHONE & DATA WIRING BY OWNER'S SUBCONTRACTOR.
- PHONE / DATA CABLING TO BE PLENUM RATED.
- DATA CABLING TO BE CAT6.
- JUNCTION BOX
- DISCONNECT
- TIE INTO EXISTING

## LIGHTING SYMBOL LEGEND

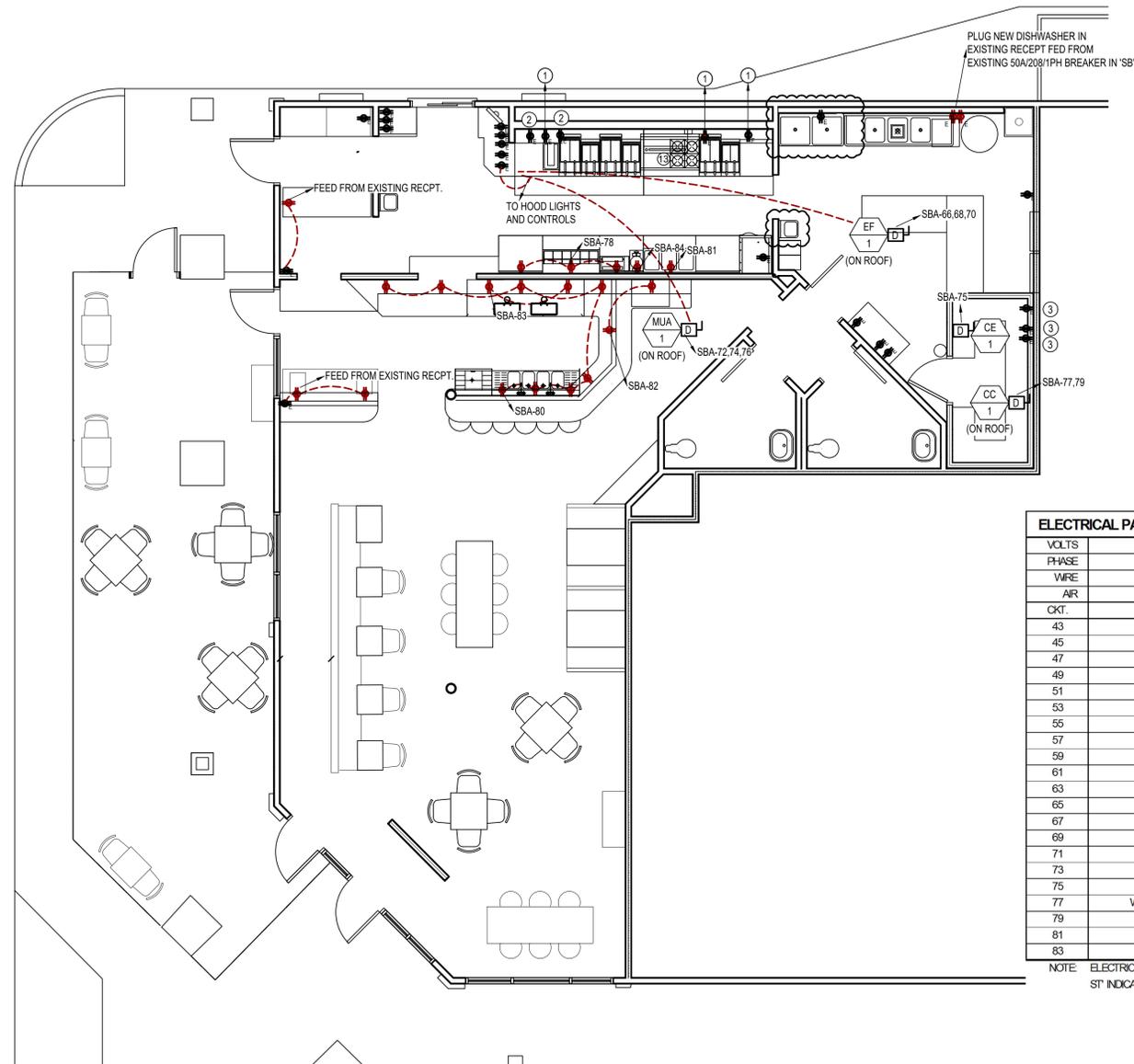
- LIGHTING FIXTURE
- UN-SWITCHED NIGHT LIGHT
- DARKENED INDICATES FIXTURE WITH EMERGENCY BALLAST
- INDICATES FIXTURE TYPE
- TOGGLE SWITCH
- TYPE OF SWITCH
- DIMMER SWITCH

## LIGHTING PLAN GENERAL NOTES

- EXISTING LIGHTING TO REMAIN.

## POWER PLAN GENERAL NOTES

- EQUIPMENT LABELED "E", "EX", OR EXISTING IS EXISTING EQUIPMENT TO REMAIN UNLESS NOTED OTHERWISE.



## POWER PLAN KEY NOTES

- EXISTING RECEPTACLE AND WIRING TO REMAIN AND USED FOR NEW EQUIPMENT. ELECTRICIAN TO TRACE CIRCUIT AND INSTALL NEW SHUNT TRIP BREAKER ON CIRCUITS FEEDING OUTLET. SHUNT TRIP TO BE CONTROLLED BY HOOD FIRE SUPPRESSION SYSTEM.
- EXISTING RECEPTACLE. ELECTRICIAN TO TRACE CIRCUIT AND EITHER DISCONNECT FROM POWER SOURCE OR INSTALL NEW SHUNT TRIP BREAKER ON CIRCUITS FEEDING OUTLET. SHUNT TRIP TO BE CONTROLLED BY HOOD FIRE SUPPRESSION SYSTEM.
- DEMO EXISTING RECEPTACLES, INSTALL NEW BLANK FACEPLATE, AND REMOVE CONDUCTORS BACK TO NEAREST JBOX ABOVE CEILING.

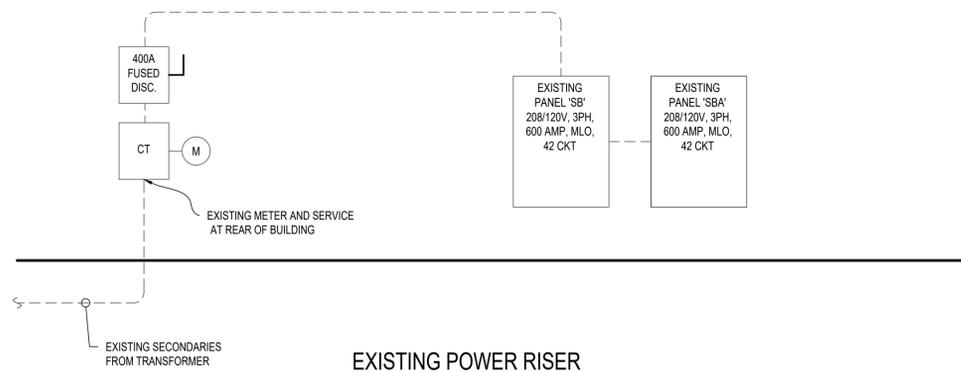
## ELECTRICAL PANEL SCHEDULE

ELECTRICAL PANEL SCHEDULE						PANEL NO. SBA		
VOLTS	208	MAIN CAPACITY:		600 MLO		"A" AMPS = 44		
PHASE	3	MOUNTING:		RECESSED		"B" AMPS = 34		
WIRE	SEE RISER	BUS MATERIAL:		COPPER		"C" AMPS = 59		
AIR	SEE RISER	SQUARE D MODEL:		NQ				
CKT.	LOCATION/DESC.	BREAKER	AMPS	PH	AMPS	BREAKER	LOCATION/DESC.	CKT.
43	EXISTING	A		A			EXISTING	44
45	EXISTING	B		B			EXISTING	46
47	EXISTING	C		C			EXISTING	48
49	EXISTING	A		A			EXISTING	50
51	EXISTING	B		B			EXISTING	52
53	EXISTING	C		C			EXISTING	54
55	EXISTING	A		A			EXISTING	56
57	EXISTING	B		B			EXISTING	58
59	EXISTING	C		C			EXISTING	60
61	EXISTING	A	8	A	8	20-1 ST	UNDER HOOD RECEPTS	62
63	EXISTING	B		B		\	SHUNT TRIP SPACE	64
65	EXISTING	C	10	C	10	20-3	HOOD EF	66
67	EXISTING	A	10	A	10	\	\	68
69	EXISTING	B	10	B	10	\	\	70
71	EXISTING	C	4	C	4	15-3	HOOD MUA	72
73	EXISTING	A	4	A	4	\	\	74
75	WALK IN EVAP	20-1	5	B	4	\	\	76
77	WALK IN CONDENSER	20-2	10	C	15	20-1	BUN WARMER, SAND TABLE	78
79	\	\	10	A	12	20-1	BAR OUTLETS	80
81	WARMER TABLE	20-1	12	B	3	20-1	WAITRESS STAND, BAR OUTLETS	82
83	BEER TAPS	20-1	11	C	9	20-1	WAFFLE MAKER	84

NOTE: ELECTRICIAN TO VERIFY ALL EQUIPMENT POWER REQUIREMENTS PRIOR TO ANY EQUIPMENT & BREAKER PURCHASE OR INSTALLATION.  
ST\* INDICATES SHUNT TRIP BREAKER, WIRED TO HOOD FIRE SUPPRESSION CONTACTS.

## POWER PLAN

SCALE: 3/16" = 1'-0"



ELECTRICAL LOAD CALCULATION - EXISTING BUILDING (NEC 220-35)				
METER#	AMPS	VA	MULTIPLIER	TOTAL
MAX 1-YR DEMAND	--	31,600	1.25	39,500
NEW LOAD (SUM OF ALL PHASES)	137	16,440	1	16,440
TOTAL NEW SERVICE LOAD (VA)	--	--	--	55,940
TOTAL NEW SERVICE LOAD (AMPS/PHASE)	--	56,940	360	155
EXISTING ELECTRIC SERVICE IS 400 AMP, 208V, 3 PHASE, THEREFORE ADDED ELECTRICAL LOAD IS ACCEPTABLE.				

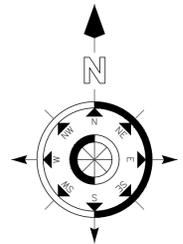
PEAK USED OCCURRED DURING LAST OCCUPANCY, PRIOR TO VACANCY, PER UTILITY. NEW LOADS HAVE BEEN INCLUDED, BUT NO CREDIT TAKEN FOR OLD EQUIPMENT THAT WAS REMOVED, AS THOSE LOADS ARE UNKNOWN. THEREFORE THIS CALCULATION IS QUITE CONSERVATIVE.

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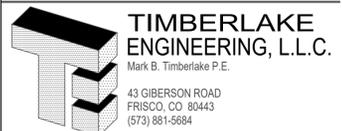
REVISIONS:	DATE:
ADDED PREP SINK, RELOCATED HAND SINK	3/25/2020

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Mark Timberlake, P.E.  
PE-0049319

MARCH 25, 2020



POWER & LIGHTING PLAN

## HYPNO-CHIC RESTAURANT

255 ANGLER'S DRIVE, SUITE A, STEAMBOAT SPRINGS, CO 80487

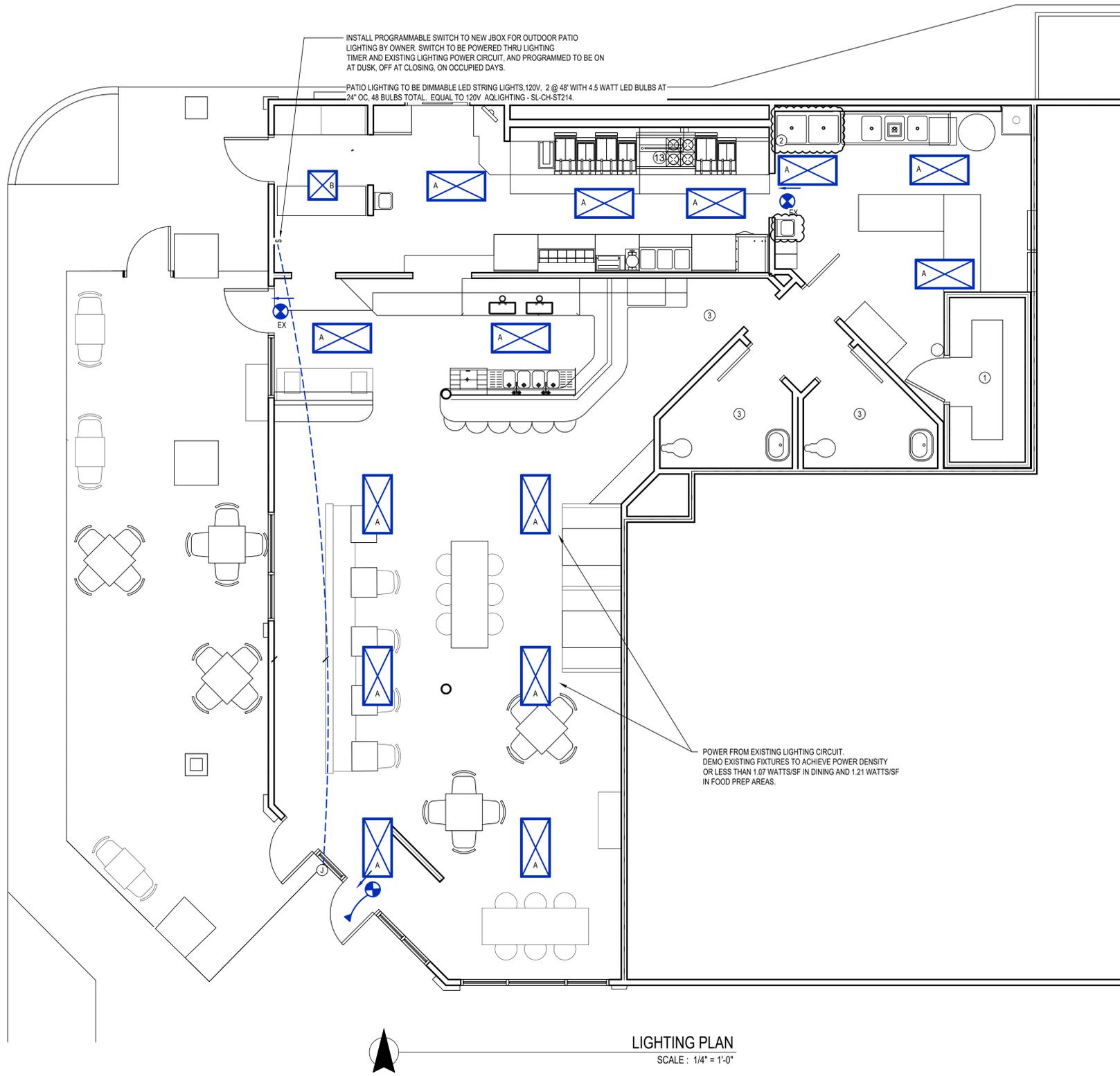
DATE: 01-12-2020 SHEET NO.

DRAWN BY: MBT

PROJECT NO: 19001

SCALE: 1/4"=1'-0"

**EP100**



**LIGHTING PLAN**  
SCALE: 1/4" = 1'-0"

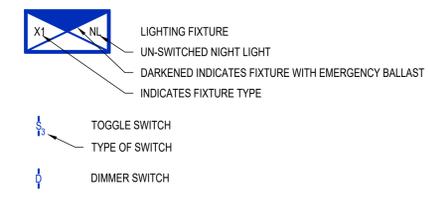
**GENERAL NOTES**

1. ALL EMERGENCY, EXIT, AND NIGHT LIGHTS TO BE UN-SWITCHED, WIRED ON CIRCUIT WITHIN SAME ROOM.
2. EQUIPMENT LABELED "EX." OR "EXISTING" IS EXISTING EQUIPMENT TO REMAIN UNLESS NOTED OTHERWISE.

**KEY NOTES**

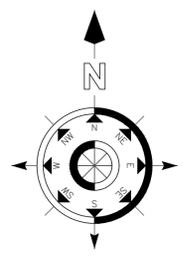
- ① ELECTRICIAN TO INSTALL AND WIRE WALK IN LIGHT FIXTURES, PROVIDED WITH WALK-IN.
- ② LOCATION OF EXISTING LIGHTING SWITCHES. REPLACE EXISTING SWITCHES WITH WATTSTOPPER RT-200 PROGRAMMABLE SWITCH TO TURN LIGHTING OFF DURING UNOCCUPIED HOURS.
- ③ EXISTING LIGHTING IN BATHROOMS AND HALLWAY TO REMAIN.

**LIGHTING SYMBOL LEGEND**



**ELECTRICAL SPECIFICATIONS**

1. ALL CONDUCTORS SHALL BE THIN COPPER ABOVE GRADE, XHHW-2 BELOW GRADE, MINIMUM #12 OR LARGER AS REQUIRED OR SHOWN.
2. ALL SERVICE WIRING, EXPOSED TO WEATHER, OR WIRING BELOW GRADE, SHALL BE IN RIGID GALVANIZED CONDUIT OR SCH. 40 PVC.
3. ALL OTHER WIRING SHALL BE IN EMT, SCHEDULE 40 PVC, OR MC CABLE, UNLESS PROTECTED AND ENCLOSED WITHIN BUILDING MATERIALS, IN WHICH CASE TYPE NM CABLE MAY BE USED.
4. WALL SWITCHES SHALL BE LEVITON #CS120 SERIES, OR APPROVED EQUAL, 20A, COLOR SHALL BE DETERMINED BY ARCHITECT. DIMMER SWITCHES SHALL BE SELECTED BY CONTRACTOR TO BE COMPATIBLE WITH LIGHT FIXTURES PROVIDED, COLOR SHALL BE DETERMINED BY ARCHITECT.
5. DUPLEX RECEPTACLES SHALL BE TAMPER RESISTANT LEVITON #T580 SERIES, OR APPROVED EQUAL, 20A, GROUNDING, MATCHING COVER PLATE, COLOR AS DETERMINED BY ARCHITECT. USE SIDE WIRING ONLY.
6. ARC-FAULT CIRCUIT INTERRUPTER BREAKERS SHALL BE COMBINATION TYPE BY SQUARE D, AND SHALL HAVE A DEDICATED NEUTRAL WIRE THROUGHOUT THE CIRCUIT.
7. THE ENTIRE SYSTEM SHALL BE ELECTRICALLY CONTINUOUS AND PROPERLY GROUNDED. EVERY FEEDER AND BRANCH CONDUIT SHALL HAVE CODE SIZED GREEN INSULATED GROUND CONDUCTOR. FURNISH AND INSTALL ALL LIGHTING FIXTURES, LAMPS, FUSES, BREAKERS, ETC. TO COMPLETE THE BRANCH CIRCUITS INDICATED.
8. ALL 120V, 20A LIGHTING AND RECEPTACLE CIRCUITS REQUIRING MORE THAN 100' OF CONDUCTORS (ONE WAY) SHALL BE #10 CONDUCTORS, MINIMUM.
9. PROVIDE TYPEWRITTEN BREAKER SCHEDULE IN EACH PANELBOARD INDICATING ITEMS AND DEVICES SERVED BY ALL BREAKERS IN EACH PANEL.
10. PERMANENTLY LABEL DISCONNECTS FOR HVAC EQUIPMENT WITH EQUIPMENT SERVED, AND PANEL AND CIRCUIT NUMBER.
11. UNDERGROUND SPLICES TO BE MADE WITH DEVICES RATED FOR THAT APPLICATION.
12. ALL ELECTRICAL PANELS AND DISCONNECTS SHALL HAVE A PERMANENT ARC-FLASH LABEL AFFIXED PER NEC 110.16.



LIGHTING SCHEDULE												
MARK	MANUFACTURER*	MODEL NO.*	TYPE	VOLTS	AMPS	WATTS	LUMENS	CCT (*K)	CRI	LAMPS	MOUNTING	REMARKS
A	METALLUX	24FP4735C	2x4 FLAT PANEL	120	0.34	40.4	4990	3500	80	LED	GRID	
B	METALLUX	22FP4235C	2x2 FLAT PANEL	120	0.32	38.9	4641	3500	80	LED	GRID	

\* OR EQUAL

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DO NOT SCALE THIS DRAWING. SOME DEVIATION FROM SCALE MAY OCCUR.

REVISIONS:	DATE:
ADDED PREP SINK, RELOCATED HAND SINK	3/25/2020

THE PROFESSIONAL ENGINEER'S SEAL ON THIS DRAWING HAS BEEN AFFIXED IN ACCORDANCE WITH THE REQUIREMENTS OF STATE REGULATIONS. IN AFFIXING THIS SEAL THE ENGINEER TAKES RESPONSIBILITY FOR THE WORK SHOWN ON THIS DRAWING ONLY, AND HEREBY DISCLAIMS ANY AND ALL RESPONSIBILITY FOR OTHER PROJECT DRAWINGS NOT DIRECTLY BEARING THIS SEAL.



Mark Timberlake, P.E. MARCH 25, 2020  
PE-0049319

**TIMBERLAKE ENGINEERING, L.L.C.**  
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FRISCO, CO 80443  
(573) 881-5684

**LIGHTING PLAN**

**HYPNO-CHIC RESTAURANT**

255 ANGLER'S DRIVE, SUITE A, STEAMBOAT SPRINGS, CO 80487

DATE:	01-12-2020	SHEET NO.
DRAWN BY:	MBT	
PROJECT NO.:	19001	
SCALE:	1/4"=1'-0"	

**EL100**

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REVISIONS:	DATE:
ADDED PREP SINK, RELOCATED HAND SINK	3/25/2020

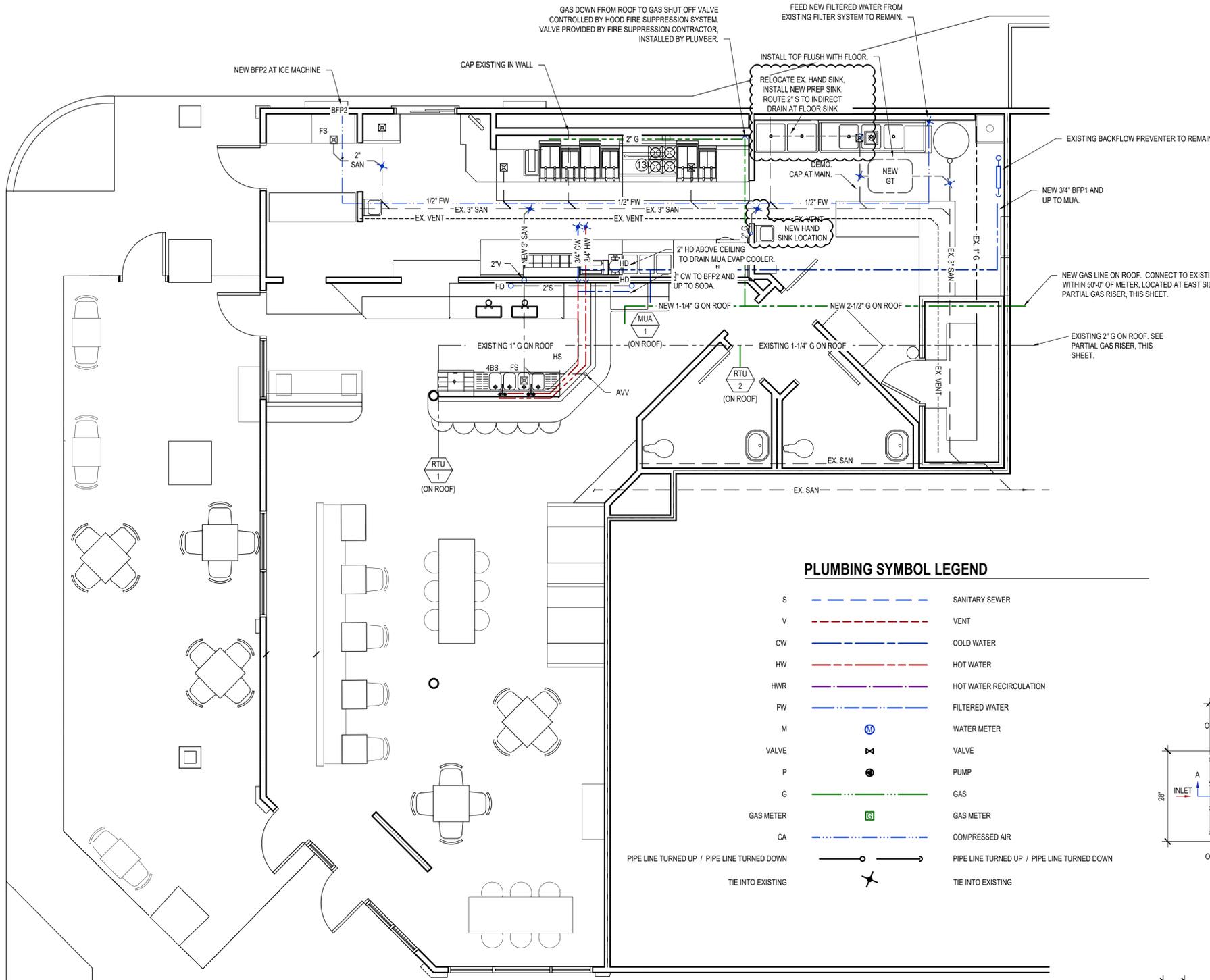
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### PLUMBING SPECIFICATIONS

- WASTE AND VENT PIPING INSIDE BUILDING SHALL BE SCH. 40 PVC DWV PLASTIC WITH SOLVENT WELD FITTINGS BELOW GRADE, AND SCH. 40 PVC DWV PVC, COPPER OR NO-HUB CAST IRON ABOVE GRADE. MINIMUM SLOPE: 1/4" PER FT 1 1/4" TO 2 1/2" PIPE, 1/8" PER FT 3" TO 6", 1/16" PER FT 8" AND LARGER. PVC TO BE SOLID CORE - CELLULAR CORE IS NOT ACCEPTABLE.
- WATER PIPING SHALL BE TYPE "K" COPPER BELOW GRADE, TYPE "L" COPPER ABOVE GRADE. THERE SHALL BE NO JOINTS IN WATER PIPING BELOW SLABS. UNDERGROUND COPPER JOINTS TO BE SILVER SOLDERED. IF PEX PIPING IS USED, PIPE SIZES MUST BE INCREASED BY ONE PIPE SIZE ABOVE WHAT IS SHOWN ON PLANS. ALTERNATIVELY, PEX-A PIPING MAY BE USED AT SIZES INDICATED IF MANUFACTURER'S ENGINEERED PLANS ARE PROVIDED SHOWING ACCEPTABLE PRESSURE DROP AND FLUID VELOCITIES.
- LP & NATURAL GAS PIPING ABOVE GRADE SHALL BE SCH. 40 BLACK STEEL PIPE WITH CLASS 150 MALLEABLE IRON THREADED FITTINGS. ALL NEW EXTERIOR GAS PIPING SHALL BE PAINTED TO MATCH BUILDING WHERE EXPOSED ON BUILDING FACE AND YELLOW IN ALL OTHER LOCATIONS. ROOFTOP MOUNTED PIPING SHALL BE FASTENED TO AND SUPPORTED BY "ROOFTOP BLOC".
- INSULATE ALL DOMESTIC WATER PIPING, INCLUDING BELOW SLAB, WITH 1/2" THICK PLENUM RATED ARMAFLEX.
- PLUMBING FIXTURES SHALL BE AS INDICATED ON DRAWING. FURNISH AND INSTALL CHROME STOP VALVES, SUPPLIES, ESCUTCHEONS AND TRAPS AS REQUIRED FOR ALL FIXTURES.
- ALL SEWER VENT TERMINATIONS SHALL BE LOCATED MINIMUM 10' HORIZONTALLY OR 3' HIGHER THAN ANY AIR INTAKE. PLUMBER IS RESPONSIBLE TO REROUTE ANY VENT TERMINATIONS AS REQUIRED TO ACCOMPLISH THIS REQUIREMENT.

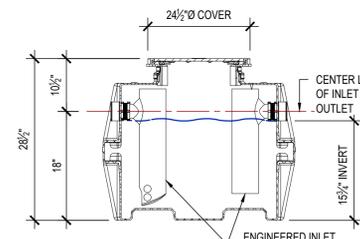
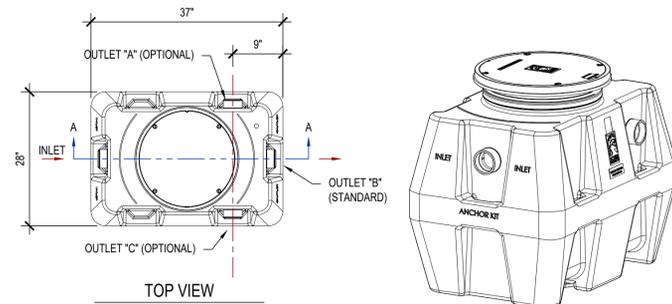
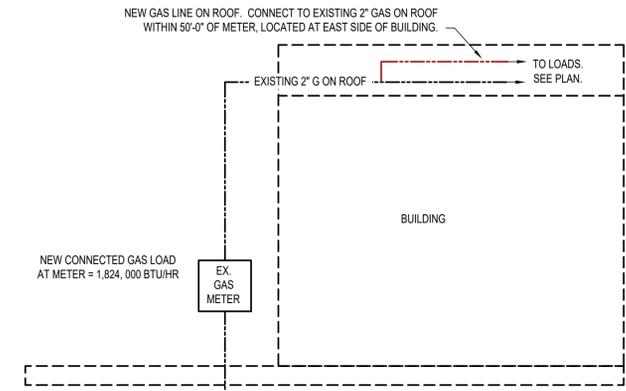
### GENERAL NOTES

- REFER TO PD100 FOR REMAINING PLUMBING NOTES, LEGENDS, DETAILS & SCHEDULES
- PLUMBING EQUIPMENT & PIPING LABELED "EX." OR "EXISTING" IS EXISTING TO REMAIN UNLESS NOTED OTHERWISE.



### PLUMBING SYMBOL LEGEND

S	---	SANITARY SEWER
V	---	VENT
CW	---	COLD WATER
HW	---	HOT WATER
HWR	---	HOT WATER RECIRCULATION
FW	---	FILTERED WATER
M	⊙	WATER METER
VALVE	⊗	VALVE
P	⊙	PUMP
G	---	GAS
GAS METER	⊙	GAS METER
CA	---	COMPRESSED AIR
PIPE LINE TURNED UP / PIPE LINE TURNED DOWN	↗ / ↘	PIPE LINE TURNED UP / PIPE LINE TURNED DOWN
TIE INTO EXISTING	✶	TIE INTO EXISTING



### SCHIER PRODUCTS #GB-50

- 4" PLAIN END INLET/OUTLET
- UNIT WEIGHT - W/COMPOSITE COVERS: 92 LBS.; W/CAST IRON COVERS: 172 LBS. (FOR WET WEIGHT ADD 433 LBS.)
- MAXIMUM OPERATING TEMPERATURE: 149°F CONTINUOUS
- CAPACITIES - LIQUID: 52 GAL.; GREASE: 249 LBS. SOLIDS: 12.5 GAL.
- BUILT-IN FLOW CONTROL. FOR SERIES INSTALLATIONS, ONLY INSTALL FLOW CONTROL ON THE FIRST UNIT IN THE SERIES IF NECESSARY.
- FOR GRAVITY DRAINAGE APPLICATIONS ONLY.
- DO NOT USE FOR PRESSURE APPLICATIONS.
- COVER PLACEMENT ALLOWS FULL ACCESS TO TANK FOR PROPER MAINTENANCE.
- VENT NOT REQUIRED UNLESS PER LOCAL CODE.
- ENGINEERED INLET AND OUTLET DIFFUSERS WITH INSPECTION PORTS ARE REMOVABLE TO INSPECT / CLEAN PIPING. FOR SERIES INSTALLATIONS, THE TOP OF THE INLET DIFFUSER ON THE FIRST UNIT IN THE SERIES MUST BE SEALED.
- INTEGRAL AIR RELIEF / ANTI-SIPHON / SAMPLING ACCESS.

MARK	DESCRIPTION	MANUFACTURER	MODEL NO.	REMARKS
4BS	3 BASIN SINK			BY KITCHEN SUPPLIER
AVV	AIR ADMITTANCE VALVE	OATEY "SUREVENT"	39016	1-1/2" OR 2", GOOD FOR UP TO 20 DFU, LOCATE IN ACCESSIBLE LOCATION ABOVE FLOOD RIM OF FIXTURE
BFP1	BACKFLOW PREVENTER	WILKINS	975XL2	SIZE AS INDICATED ON DRAWINGS
BFP2	BACKFLOW PREVENTER	WILKINS	740	STAINLESS STEEL / PIPED TO NEAREST INDIRECT DRAIN
FS	FLOOR SINK	SOUX CHIEF	861-PN	PVC BODY, NICKEL-BRONZE FRAME AND GRATE
GT	GREASE TRAP - ABOVE OR BELOW GRADE	SCHIER PRODUCTS	GB-50	50 GPM, 41 LIQUID GALLONS, 128 LBS CAPACITY, LIFETIME WARRANTY
HD	HUB DRAIN WITH TRAP GUARD			WITH PROSET TG33-ZURN TRAP GUARD
HS	HAND SINK			BY KITCHEN SUPPLIER

FIXTURE	WATER		WASTE	VENT	WATER HAMMER ARRESTOR REQUIRED
	COLD	HOT			
LAVATORY	1/2"	1/2"	1 1/2"	1 1/4"	YES
WATER CLOSET - FLUSH VALVE	1"		4"	2"	YES
WATER CLOSET - TANK	1/2"		4"	2"	YES
URINAL	3/4"		2"	1 1/4"	YES
MOP SINK	1/2"	1/2"	3"	1 1/2"	NO
HAND SINK	1/2"	1/2"	2"	1 1/4"	NO
HAIR SINK	1/2"	1/2"	2"	1 1/4"	NO
SHOWER	1/2"	1/2"	3"	1 1/2"	NO
FLOOR DRAIN			3"	2"	NO
DF	1/2"		1 1/2"	1 1/4"	NO

NOTE:  
WASTE PIPING BELOW SLAB TO BE A MINIMUM OF 3".  
PROVIDE SHUT-OFF VALVES IN CW & HW LINES AT EACH FIXTURE.

### TYP. GREASE INTERCEPTOR DETAIL



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